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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,353	07/10/2003	Kenneth J. Vosniak	60497.000014	1558
21967 7590 08/04/2009 HUNTON & WILLIAMS LLP INTELLECTUAL PROPERTY DEPARTMENT 1900 K STREET, N.W. SUITE 1200 WASHINGTON, DC 20006-1109			EXAMINER WEATHERBY, ELLSWORTH	
			ART UNIT 3768	PAPER NUMBER
			MAIL DATE 08/04/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/616,353

**Applicant(s)**

VOSNIAK ET AL.

**Examiner**

ELLSWORTH WEATHERBY

**Art Unit**

3768

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 8-17 and 19-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-17 and 19-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 19, 23-24, 30-31 and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Minyard et al. (USPN 6,891,920).

3. Minyard et al. (hereinafter Minyard) teaches a method for configuring an imaging device comprising the steps of: specifying at least one criterion for determining a next patient to be scanned and storing the at least one criterion in a database (col. 12, ll. 18-35); applying the at least one criterion to a plurality of scheduled patients (col. 12, ll. 36-47; col. 13, ll. 20-49); receiving an identification of the next patient to be scanned based on the at least one criterion (col. 14, ll. 28-67); retrieving scan-specific and patient specific information for the next patient to be scanned (col. 13, ll. 20-49; col. 14, ll. 28-67); and configuring the scanner for the next patient (col. 12, ll. 55-65). Minyard also teaches that the at least one criterion comprises a patient scheduled time (col. 13, ll. 20-49; col. 14, ll. 42-66). Minyard also teaches a radiation device that includes a detector (Fig. 2).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 8-14, 16-17 and 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waku et al. (Pub. No.: 2002/0099571) in view of Damadian et al. (USPN 5,623,927).

Waku et al. (hereinafter Waku) teaches a method of configuring a scan in an imaging device comprising data acquisition for a first patient (fig. 4) wherein basic patient information is input [0036; 0172; 0136-0147]. Here, Waku defines a stream for the operation of a system for executing medical works relating to a plurality of patients in parallel, in a single apparatus [0036]. Waku goes on, teaching completing a data entry step including entering scan configuration data related to a first scan into a scan processing unit (0051; 0070; 0167); at any time a second data entry step may be completed manually or automatically, the second data entry step including entering scan configuration data related to the second scan into the scan processing unit (0064-0065; 0070; 0073-0074; 0104-0106); completing the data acquisition for the first scan and thereafter beginning a data acquisition step for the second scan (0064-0065; 0070). Waku also teaches utilizing a list to determine a next patient to be scanned and

verifying the identity of the patient arriving at the scanner (0092; 0058; 0187). Waku also teaches that data entered locally comprises radioactive tracer information (0141). Waku further teaches that the processor is programmed to allow an operator to specify at least one criterion for determining a next patient to be scanned (0081-0084; 0091-0092; 0098; Fig. 7). Here, patient arrival time, scan time or manually adjusted times determine the next patient to be scanned (0092). Information may be downloaded from a central or global database (fig. 16) and also may be entered locally. Parameters for a scan are entered, such as the contrast medium desired [0141] and the plans for the scan, or scan protocol [0142]. A controller allows processes to be executed automatically, including executing parallel processes, which allows the steps to be completed in a single action [0052]. As shown in figures 5 and 6, there are multiple process for each patient as well as multiple patients in the database. The system may execute medical works, such as the processes shown in figures 5 and 6, relating to a plurality of patients in parallel in a single apparatus [0036].

6. Waku teaches all the limitations of the claimed invention except for expressly teaching that the second data entry step occurs during the acquisition of the first scan.
7. In a related field of endeavor, Damadian et al. (hereinafter Damadian) teaches a system and method for improving patient throughput in an imaging device where patient handling time and scan protocol time are reduced in a multipatient imaging system by multiplexing the patient handling and the necessary scan protocol components where the patient handling of one patient is overlapped with the scan protocol of a second patient (abstract). That is, Damadian et al. '927 teaches completing a patient handling

step for a second scan (preparation of the patient, loading the patient onto the patient handling system, placing the patient through the magnet aperture into the imaging volume, positioning the radio frequency coils onto or about the patient, attaching any ancillary equipment necessary for a particular patient or scan protocol, removing the patient following completion of the scan protocol, unloading the patient from the patient handling system, and preparing the scanner for the next patient) during the data acquisition step for a first scan (col. 2, ll. 18-37). Damadian et al. '927 further teaches two signals; a second scan ready signal (Fig. 5) and a first scan complete signal (Fig. 5) where upon completion of the data acquisition step for the first scan and the patient preparation for the second scan beginning the data acquisition step for the second scan (col. 7, ll. 45-55). Damadian et al. '927 also teaches a scan processing unit that receives inputs and electrical signals for controlling the operation of the imaging device (col. 7, ll. 38-44). Damadian et al. also teaches methods involving acquisition of imaging data from an individual patient, and that the scan protocol typically involves executing a single pulse sequence, or series of pulse sequences where during the acquisition of such imaging data from two or more patients simultaneously, a scan protocol can acquire imaging data from a pulse sequence or series of pulse sequences as follows: (a) in queue mode, from each patient successively; (b) in interleaved mode, where each portion of the entire data acquisition contains imaging data from only one of multiple patients, and where the separate portions of the entire data acquisition are collected in interleaved fashion; (c) in multipatient mode, where each portion of the entire data acquisition contains imaging data from more than one patient; (d) or in any combination

of queue mode, interleaved mode and multipatient mode of data acquisition (col. 5, l. 66- col. 6, l. 18).

8. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the centralized scan controller of Waku in view of the overlapping and interleaved scanning of Damadian. The motivation to modify Waku in view of Damadian would have been improve throughput by entering data during a scan.

9. Claims 20-22, 25-29 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minyard et al. (USPN 6,891,920) in view of Waku et al. (Pub. No.: 2002/0099571) and Damadian et al. (USPN 5,623,927).

10. The scan operation and sequencing of Minyard teaches all the limitations of the claimed invention except for expressly teaching that at least one criterion comprises a tracer injection time, patient arrival time, and registration time. Minyard also does not expressly teach that the step of configuring the scanner for the next patient comprises completing a first data entry step including entering scan configuration data related to a first scan into a scan processing unit and entering a second data entry step related to a second scan during the first scan.

In a related field of endeavor, Waku teaches a centralized diagnostic imager control (abstract). Waku teaches utilizing a list to determine a next patient to be scanned and verifying the identity of the patient arriving at the scanner (0092; 0058; 0187). Waku also teaches that data entered locally comprises radioactive tracer information (0141). Waku also teaches that the processor is programmed to allow an

operator to specify at least one criterion for determining a next patient to be scanned (0081-0084; 0091-0092; 0098; Fig. 7). Here, patient arrival time, scan time or manually adjusted times determine the next patient to be scanned (0092). Information may be downloaded from a central or global database (fig. 16) and also may be entered locally. Parameters for a scan are entered, such as the contrast medium desired [0141] and the plans for the scan, or scan protocol [0142]. A controller allows processes to be executed automatically, including executing parallel processes, which allows the steps to be completed in a single action [0052]. As shown in figures 5 and 6, there are multiple process for each patient as well as multiple patients in the database. The system may execute medical works, such as the processes shown in figures 5 and 6, relating to a plurality of patients in parallel in a single apparatus [0036]. Waku goes on, teaching completing a data entry step including entering scan configuration data related to a first scan into a scan processing unit (0051; 0070; 0167); at any time a second data entry step may be completed manually or automatically, the second data entry step including entering scan configuration data related to the second scan into the scan processing unit (0064-0065; 0070; 0073-0074; 0104-0106); completing the data acquisition for the first scan and thereafter beginning a data acquisition step for the second scan (0064-0065; 0070).

11. Waku teaches multiplexed scanning and patient handling. However, Waku does not expressly teach completing a first data entry step including entering scan configuration data related to a first scan into a scan processing unit and entering a second data entry step related to a second scan during the first scan.



12. In a related field of endeavor, Damadian et al. (hereinafter Damadian) teaches a system and method for improving patient throughput in an imaging device where patient handling time and scan protocol time are reduced in a multipatient imaging system by multiplexing the patient handling and the necessary scan protocol components where the patient handling of one patient is overlapped with the scan protocol of a second patient (abstract). That is, Damadian et al. '927 teaches completing a patient handling step for a second scan (preparation of the patient, loading the patient onto the patient handling system, placing the patient through the magnet aperture into the imaging volume, positioning the radio frequency coils onto or about the patient, attaching any ancillary equipment necessary for a particular patient or scan protocol, removing the patient following completion of the scan protocol, unloading the patient from the patient handling system, and preparing the scanner for the next patient) during the data acquisition step for a first scan (col. 2, ll. 18-37). Damadian et al. '927 further teaches two signals; a second scan ready signal (Fig. 5) and a first scan complete signal (Fig. 5) where upon completion of the data acquisition step for the first scan and the patient preparation for the second scan beginning the data acquisition step for the second scan (col. 7, ll. 45-55).

13. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the scan sequencing of Minyard in view of the centralized scan control of Waku and the overlapping and interleaved scanning of Damadian. The motivation to modify Minyard in view of Waku and Damadian would have been to utilize known hospital information systems to improve patient management and throughput.

***Response to Arguments***

14. Applicant's arguments, filed 04/16/2008, with respect to the rejection(s) of claim(s) 1-3, 8-14 and 36-37 under Damadian '927 in view of Mohapatra '905 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Waku '571.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELLSWORTH WEATHERBY whose telephone number is (571) 272-2248. The examiner can normally be reached on M-F 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/EW/

/Long V Le/  
Supervisory Patent Examiner, Art Unit 3768